

IGACO-Ozone/UV

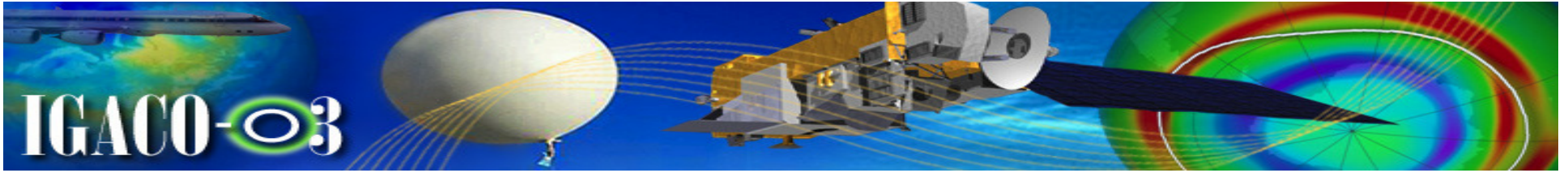
Johanna Tamminen, FMI

Geir Braathen, WMO

Johannes Staehelin, ETHZ

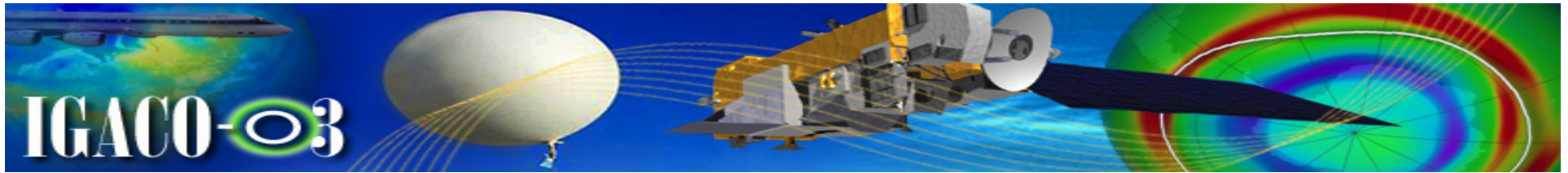
2nd Ozone Theme Meeting

May 11-13, 2009, WMO, Geneva

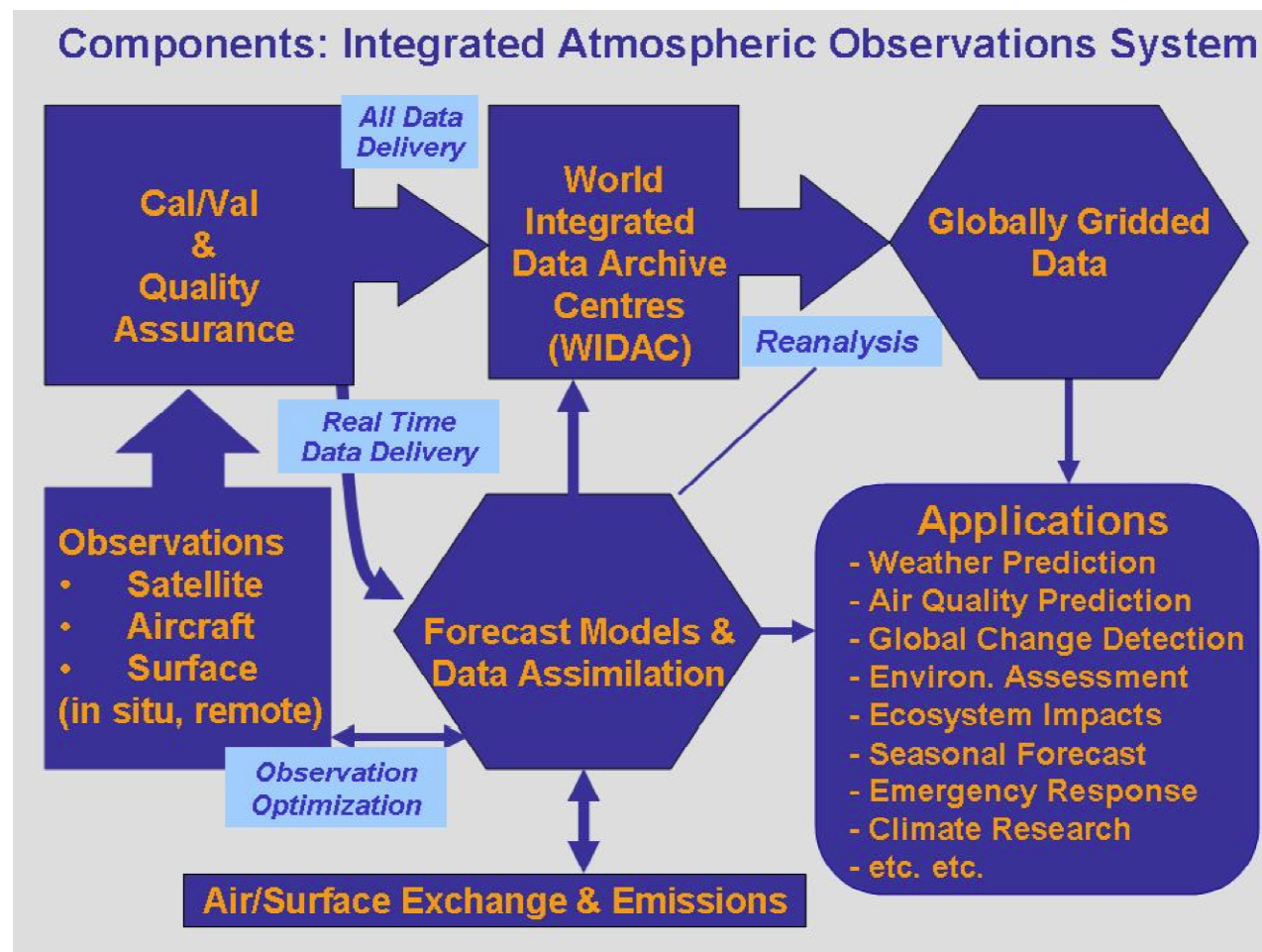


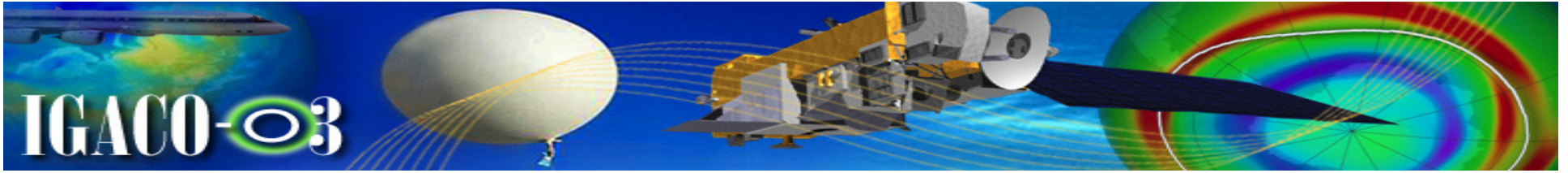
What is IGACO-Ozone/UV?

- Integrated Global Atmospheric Chemistry Observations (IGACO) report published in 2004 (AQ, GHG, Aerosols, Ozone)
- WMO has taken the lead in implementing IGACO
- 2005 IGACO Ozone and UV theme office, coordinated by FMI
- First task: **Implementation plan**



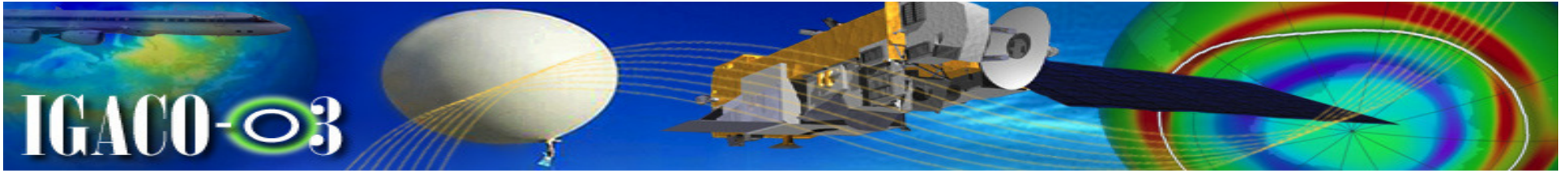
Framework of a global integrated atmospheric observations (IGACO) system





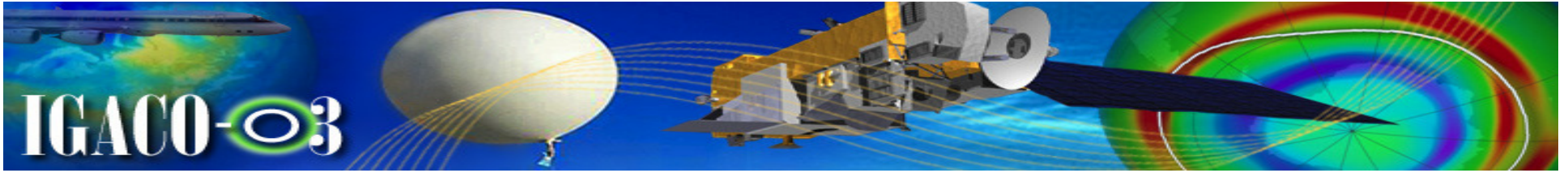
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Goals of IGACO O3/UV

- Make the best use of all ozone/UV data, models and assimilation:
 - Ensure data availability:
 - Measurements: continuity, coverage, comparability, quality, validation
 - Data: easy access, archived
 - Models and assimilation:
 - Forecast, AQ, Climate
 - Combining data and models



Implementation plan

Four activity groups:

A. Stratospheric ozone

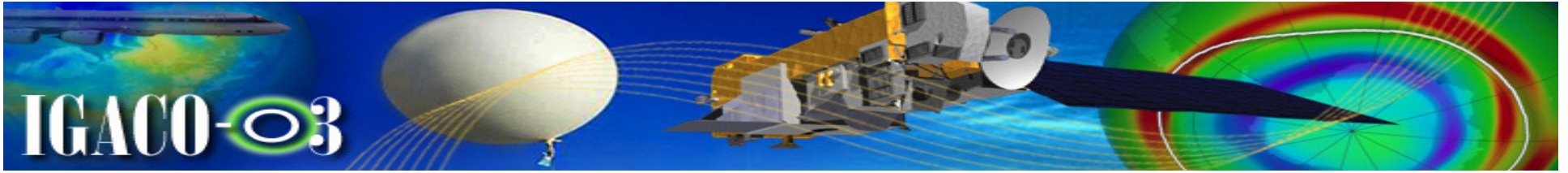
- Column ozone measurements (A1-A6)
- Stratospheric ozone profiles (A7-A8)

B. Ozone in UT/LS (B1-B3)

C. UV-radiation (C1-C6)

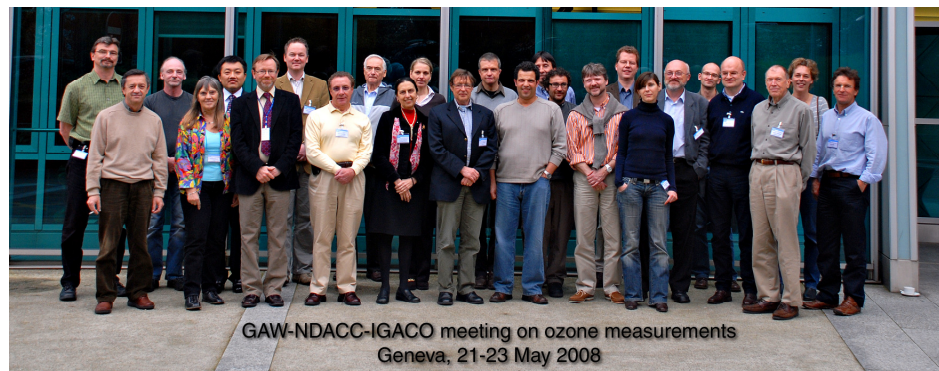
D. Services (D1-D12)

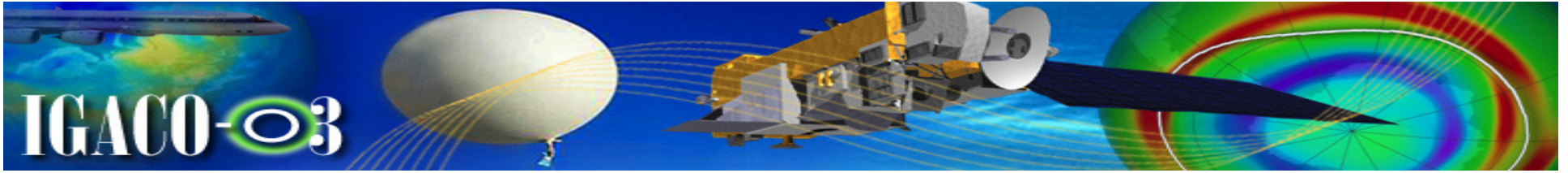
New activity 2009: Ozone absorption cross sections (A9)



Workshops

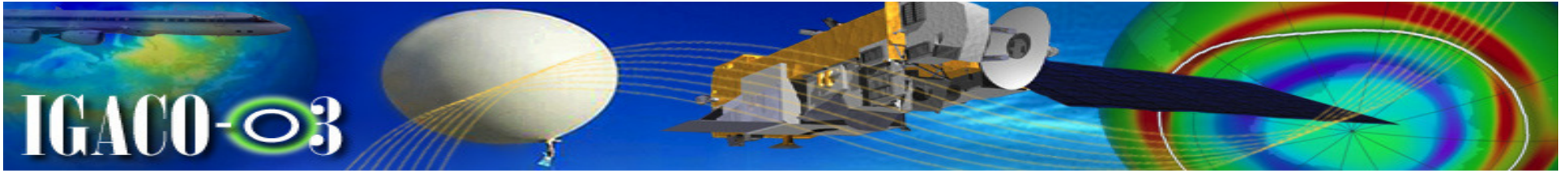
- Implementation plan (3 meetings 2005-07)
- Systematic comparisons of satellite and ground based data (Dobson and Brewer 2006, SAOZ and DOAS 2009) (**A5**)
- Ozone Theme Meetings
 - 2008 “Ozone measurements” (**A1**)
 - 2009 “Ozone cross sections” (**A9**)





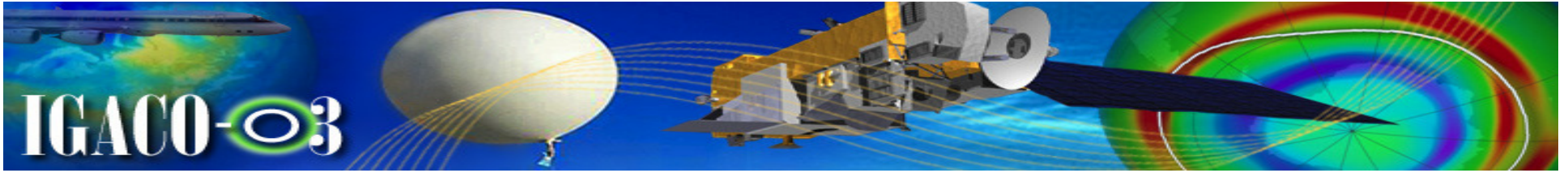
Expectations

- Understand the uncertainties in ozone cross sections (incl. T dependence)
- Understand the uncertainty in various ozone measurements due to uncertainties in ozone cross sections
- Are the best cross sections unique for all instruments? Can we move towards using common cross sections?
- **Next steps**



“Every effort should be made to have same spectroscopic database to ensure that these fundamental parameters do not cause biases”

IGACO report 2004 on satellite data



IGACO-O3/UV

www.igaco-o3.fi

New ideas welcome!